claims.

CLAIMS

We claim:

1. A system for verifying ~~the~~ authenticity of a
manufactured product, comprising:
    an electronic tag attached to one of said product
and product packaging, said electronic tag comprising
a memory for storing authentication information for
said product in encrypted form; and
    a reader equipped with a decryption key for
reading said authentication information from said
electronic tag to verify that said product is
~~authentic.~~

2. A system for verifying the authenticity of a
manufactured product as recited in claim 1 wherein said
electronic tag is a smart card.

3. A system for verifying the authenticity of a
manufactured product as recited in claim 1 wherein said
electronic tag is embedded into one of said product and
product packaging product.

4. A system for verifying the authenticity of a
manufactured product as recited in claim 1 wherein said
authentication information is encrypted using a private
key and said reader decrypts said information using a
corresponding public key.

5. A system for verifying the authenticity of a
manufactured product as recited in claim 1 further

3   comprising a point of sale machine containing said

4   reader for authenticating said product in front of a

5   consumer prior to purchase of the product.

1   6. A system for verifying the authenticity of a

2   manufactured product as recited in claim 1 wherein said

3   reader comprises means for reading said electronic tag

4   without physically contacting said electronic tag.

1   7. A system for verifying the authenticity of a

2   manufactured product as recited in claim 1 wherein a

3   zero-knowledge protocol is used to make said

4   authentication information resistant to duplication.

1   8.   A system for verifying the authenticity of a

2   manufactured product as recited in claim 1 wherein said

3   authentication information is directed to a

4   manufacturer of the product.

1   9. A system for verifying the authenticity of a

2   manufactured product as recited in claim 1 wherein said

3   authentication information is specific to the product.

1   10. A system for verifying the authenticity of a

2   manufactured product as recited in claim 1 further

3   comprising a label having the authentication

4   information printed thereon to be verified against the

5   authentication information read by said reader.

1   11. A system for verifying the authenticity of a

2   manufactured product as recited in claim 9 wherein said

3   authentication information comprises one or more of

4 product color, product shape, product serial number,
   product weight, product routing information, and
   product chemical composition.

1 12. A system for verifying the authenticity of a
2 manufactured product as recited in claim 9 wherein said
3 authentication information comprises a graphic image of
4 the product.

1 13. A system for verifying the authenticity of a
2 manufactured product as recited in claim 9 wherein said
3 authentication information comprises an ownership
4 history of the product.

1 14. A system for verifying the authenticity of a
2 manufactured product as recited in claim 1 wherein said
3 authentication information is erased from said memory
4 after being read.

1 15. A system for verifying the authenticity of a
2 manufactured product as recited in claim 1 wherein said
3 authentication information further comprises
4 information for authenticating said electronic tag.

1 16. A method for verifying the authenticity of a
2 manufactured product, comprising the steps of:
3   generating authentication information for a
4 manufactured product;
5   encrypting said authentication information using a
6 private key;
7   storing said encrypted information in electronic
8 tag,

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9	attaching said electronic tag to one of said
10	manufactured product and manufactured product
11	packaging;
12	reading said encrypted authentication information
13	from said electronic tag; and
14	decrypting said encrypted information using a
15	public key corresponding to said private key to verify
16	that said manufactured product is authentic.

1	17. A method for verifying the authenticity of a
2	manufactured product as recited in claim 16 further
3	comprising the step of using a zero-knowledge protocol
4	to make said authentication information resistant to
5	duplication.

1	18. A method for verifying the authenticity of a
2	manufactured product as recited in claim 16 further
3	comprising the step of attaching a printed label to
4	said product comprising said authentication
5	information.

1	19. A method for verifying the authenticity of a
2	manufactured product as recited in claim 16 further
3	comprising the step of erasing said authentication
4	information from said electronic tag after reading.

1	20. A method for verifying the authenticity of a
2	manufactured product as recited in claim 16 further
3	comprising the step of recording an ownership history
4	of said product in said electronic tag.

1	21. A method for detecting manufactured products in a

2   parallel market, comprising the steps of:

3   generating authentication information for a

4   manufactured product including routing information for

5   the product;

6   encrypting said authentication information using a

7   private key;

8   storing said encrypted information in electronic

9   tag;

10   attaching said electronic tag to one of the

11   manufactured product and manufactured product

12   packaging;

13   reading said encrypted authentication information

14   from said electronic tag at a point of sale; and

15   decrypting said encrypted information using a

16   public key corresponding to said private key to verify

17   said routing information matches routing information of

18   said point of sale to determine if said manufactured

19   product is sold in a parallel market.